CLAIMS

What is claimed is:

1.   A method for converting interlaced formatted video to progressive scan video, the method comprising:

simultaneously performing 3:2 pull down detecting, color edge detecting and temporal filtering on a first field, a second field and a third field;

binding an output result from said color edge detecting and from said temporal filtering to generate a bound output; and

3:2 cadence processing said bound output and an output generated from said 3:2 pull down detection.

2.   The method according to claim 1, further comprising selecting between a filtered deinterlaced output and a reverse 3:2 pull down output.

3.   The method according to claim 1, wherein said first field is a current field.

4.   The method according to claim 1, further comprising temporal filtering said third and said second fields.

5.   The method according to claim 1, further comprising infinite impulse response filtering said third and said second fields.

6. The method according to claim 1, further comprising performing said color edge detection on said first and said second fields.

7. The method according to claim 1, further comprising performing said 3:2 pull down detection on said second and said third fields.

8. The method according to claim 1, wherein if said first field is a top field, then said second field is a corresponding prior bottom field with respect to said top field and said third field is a corresponding successive bottom field with respect to said top field.

9. The method according to claim 1, wherein if said first field is a bottom field, then said second field is a corresponding prior top field with respect to said bottom field and said third field is a corresponding successive top field with respect to said bottom field.

10. A machine-readable storage, having stored thereon a computer program having at least one code section for converting interlaced formatted video to progressive scan video, the code sections executable by a machine for causing the machine to perform the steps comprising:

simultaneously performing 3:2 pull down detecting, color edge detecting and temporal filtering on a first field, a second field and a third field;

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binding an output result from said color edge detecting and from said temporal filtering to generate a bound output; and

3:2 cadence processing said bound output and an output generated from said 3:2 pull down detection.

11. The machine-readable storage according to claim 10, further comprising code for selecting between a filtered deinterlaced output and a reverse 3:2 pull down output.

12. The machine-readable storage according to claim 10, wherein said first field is a current field.

13. The machine-readable storage according to claim 10, further comprising code for temporal filtering said third and said second fields.

14. The machine-readable storage according to claim 10, further comprising code for infinite impulse response filtering said third and said second fields.

15. The machine-readable storage according to claim 10, further comprising code for performing said color edge detection on said first and said second fields.

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16.   The machine-readable storage according to claim 10, further comprising code for performing said 3:2 pull down detection on said second and said third fields.

17.   The machine-readable storage according to claim 10, wherein if said first field is a top field, then said second field is a corresponding prior bottom field with respect to said top field and said third field is a corresponding successive bottom field with respect to said top field.

18.   The machine-readable storage according to claim 10, wherein if said first field is a bottom field, then said second field is a corresponding prior top field with respect to said bottom field and said third field is a corresponding successive top field with respect to said bottom field.

19.   A system for converting interlaced formatted video to progressive scan video, the system comprising:

a 3:2 pull down detector coupled to a 3:2 cadence processor;

a color edge detector coupled to a binder;

a filter coupled to said binder, said binder coupled to said 3:2 cadence processor; and

an output selector coupled to said 3:2 cadence processor.

20. The system according to claim 19, further comprising a memory coupled to at least one of said 3:2 pull down detector, said 3:2 cadence processor, said color edge detector, said binder, said filter and said output selector.

21. The system according to claim 20, further comprising at least one processor coupled to said memory and said at least one of said 3:2 pull down detector, said 3:2 cadence processor, said color edge detector, said binder, said filter and said output selector.

22. The system according to claim 19, wherein said filter is one of a temporal filter and an infinite impulse response filter.